

AMENDMENTS TO THE CLAIMS:

1. (Original) A device comprising an array of structures on a substrate, wherein: said array of structures is formed from a first surface layer comprising a first material, and said substrate comprises a second material, said first surface layer being sufficiently thin that stress fields at the interface of said surface layer and said substrate caused formation of separated regions of said first material on said substrate wherein said first surface layer comprises separated regions forming at least two structures, said at least two structures being each about 2 atoms to about 10 atoms in height and being separated from each other by about 10 nm to about 50 nm, wherein the direction of alignment of said separated regions and/or the relative position of adjacent said separated regions has been influenced by directing at least one first particle beam onto said surface layer and at a respective acute angle thereto.

2. (Original) The device of claim 1, wherein said first surface layer is disposed on a crystal plane of said substrate.

3. (Original) The device of claim 1, wherein plural layers are disposed on said substrate, said first surface layer being one of said plural layers.

4. (Original) The device of claim 3, wherein each of said plural layers

comprises said first material.

5. (Original) The device of claim 4, wherein each of said plural layers comprises structures which are substantially regular and substantially linear, or substantially linear rows of dot-like structures.

6. (Original) The device of claim 5, wherein said structures in at least two adjacent of said plural layers are disposed substantially at right angles to each other, or aligned in rows substantially at right angles to each other or substantially at 120 degrees to each other.

7. (Original) The device of claim 6, wherein said structures in at least two adjacent of said plural layers are arranged directly on each other.

8. (Original) The device of claim 3, wherein at least one intermediate layer exists between said structures of at least two adjacent of said plural layers.

9. (Original) The device of claim 1, wherein gaps in said first surface layer between said at least two structures are filled by at least one adsorbed gaseous material and material that has been deposited into the gaps.

10. (Original) The device of claim 1, wherein at least said first surface

layer has an area larger than a few square centimeters.

11. (Original) The device of claim 1, wherein at least said first surface layer comprises a third material deposited thereon from a source other than a source from which the first material is deposited.

12. (Original) The device of claim 1, wherein said first material comprises calcium.

13. (Original) The device of claim 1, wherein said second material comprises calcium fluoride.

14. (Original) The device of claim 12, wherein said second material comprises calcium fluoride, and wherein said substrate comprises at least one (111) crystal plane surface, and at least a portion of said first surface layer is on at least one of said at least one (111) crystal plane surface.

15. (Original) The device of claim 1, wherein said first material comprises a semiconductor or a metal or an insulator.

16. (Original) A data storage device, comprising the device of claim 1.

17. (Original) An optoelectronic device, comprising the device of claim 1.

18. (Original) An electronic device, comprising the device of claim 1.

19. (Original) An electromechanical device, comprising the device of claim 1.

20. (Original) A device comprising an array of structures on a substrate, wherein: said array of structures is formed from a first surface layer comprising a first material, said substrate comprises a second material having at least one crystal plane surface, wherein at least a portion of said first surface layer is on at least one of said at least one crystal surface, said first surface layer being sufficiently thin that stress fields at the interface of said surface layer and said substrate caused formation of separated regions of said first material on said substrate wherein said first surface layer comprises separated regions forming at least two structures, said first material comprises at least one substance selected from the group consisting of a metal, and a semiconductor, wherein said at least two structures are aligned and regularly spaced.

21. (Original) The device of claim 20, wherein said second material comprises calcium fluoride.

22. (Original) The device of claim 20, wherein said at least two structures comprise nanowires each about 2 atoms in height, wherein said at least two structures are separated from each other by about 10 nm.

23. (Original) The device of claim 21, wherein said at least two structures are each about 2 atoms in height, wherein said at least two structures are separated from each other by about 10 nm.

24. (Original) The device of claim 23, wherein said substrate comprises at least one (111) crystal plane surface, and at least a portion of said first surface layer is on at least one of said at least one (111) crystal plane surface.

25 -42. (Cancelled hereby).